
AWS
re:Invent
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SVS314-R

AWS Lambda performance tuning: Best practices and guidance

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AWS

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Who am I?

- Principal Developer Advocate – AWS
- Father of five
- Brand-new grandpa
- Drummer
- Foodie
- Twitter -> @edjgeek



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Today’s agenda

Anatomy and lifecycle of an AWS Lambda function

Measurement of AWS Lambda function performance

Function configuration and tuning

To code or not to code

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Anatomy and lifecycle of an AWS Lambda function

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Anatomy of an AWS Lambda function

```
import aws-sdk
import http-lib
import pizza-eval

pre-handler-secret-getter()

function handler(event, context){
       pizza-eval.has-pineapples(event[“toppings”]){
              sub-function.remove-pineapples(event)
              return warning
       } else {
              return success
       }
}

function sub-function.remove-pineapples(data){ . . . }
```

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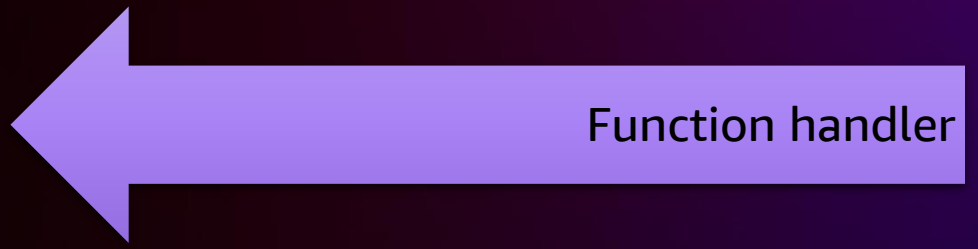
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Dependencies, configuration, common helper functions

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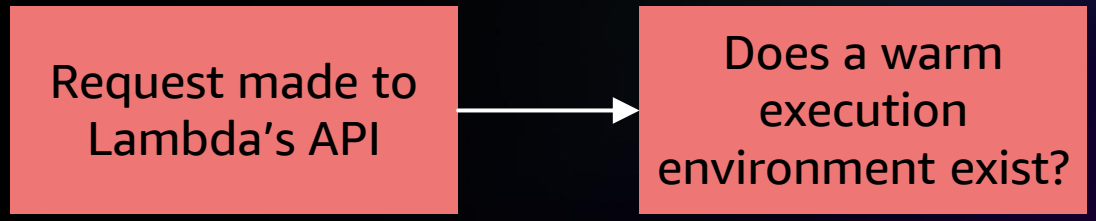




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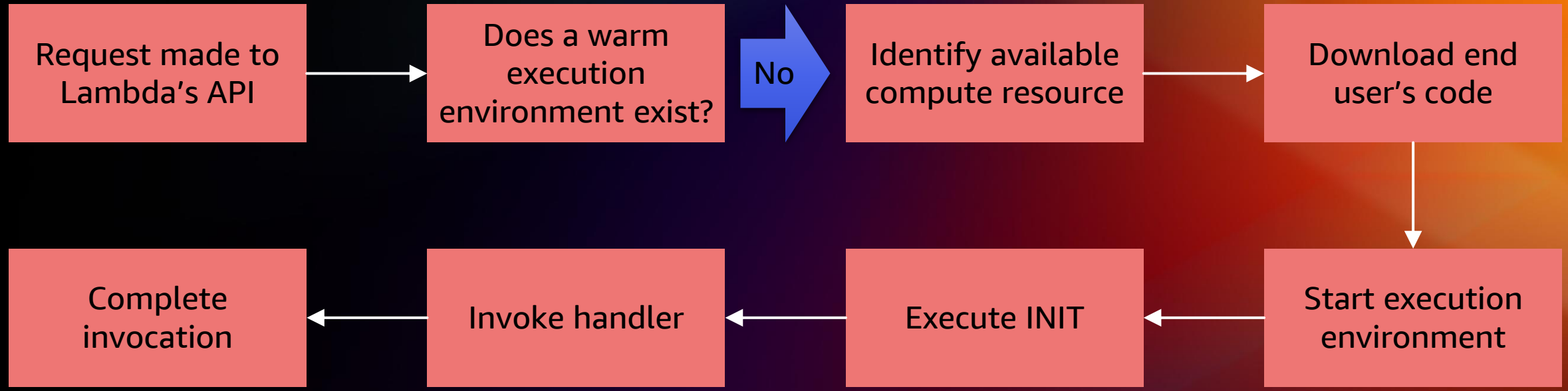
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Lifecycle of an AWS Lambda function



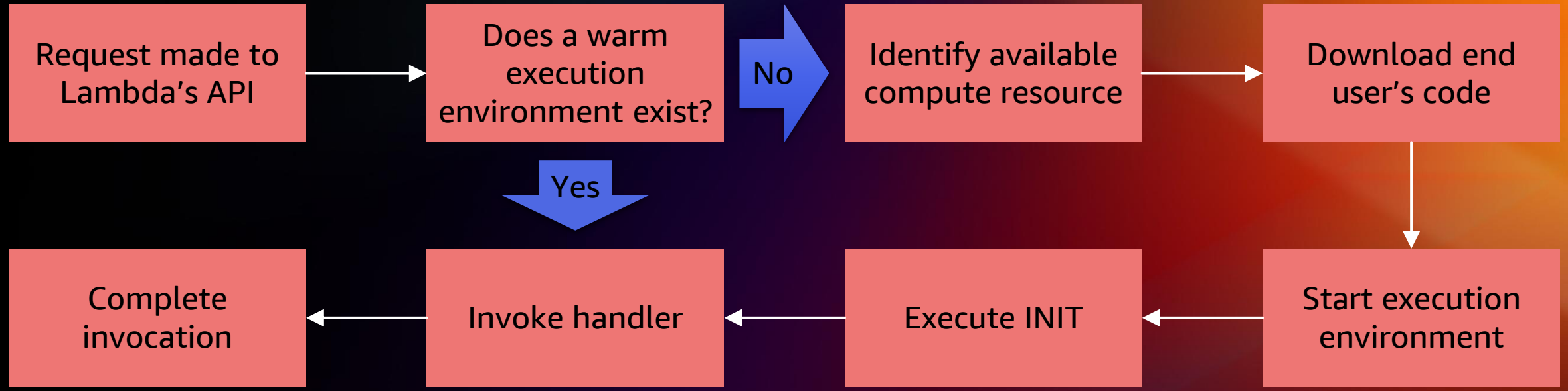
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Lifecycle of an AWS Lambda function



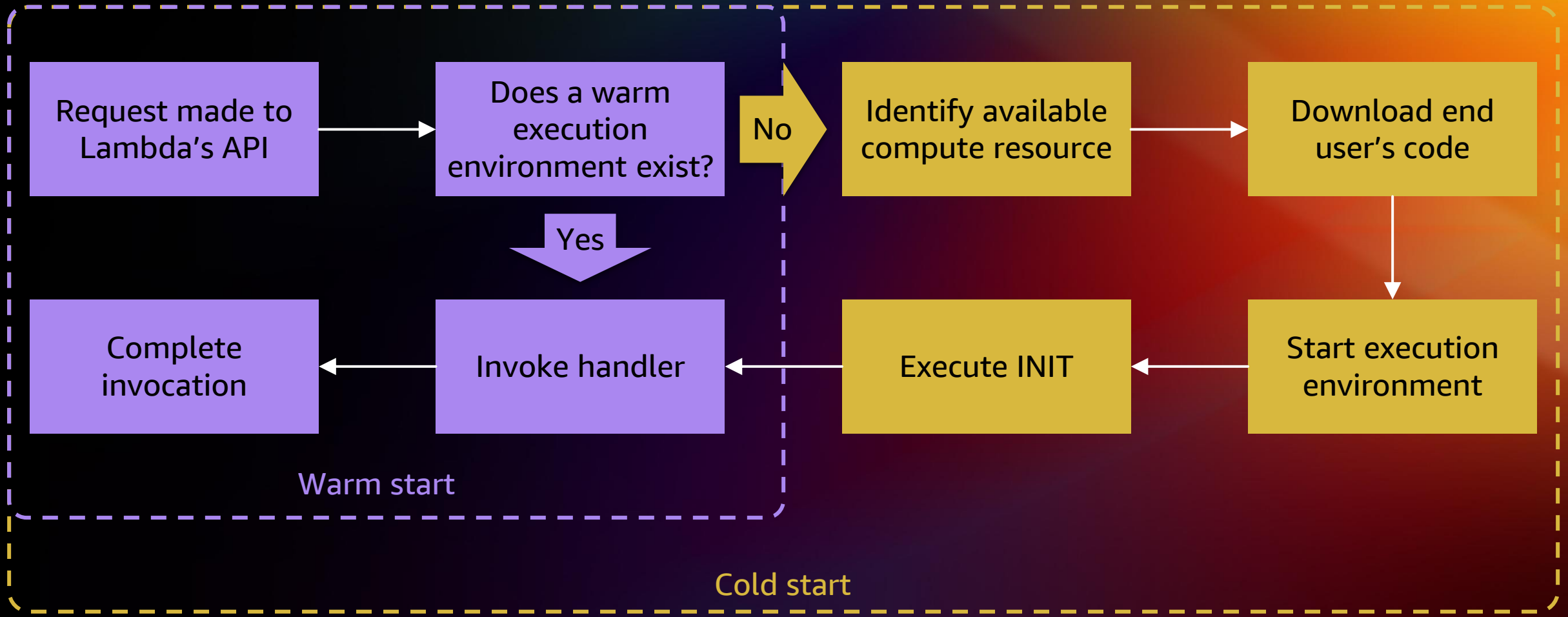
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Lifecycle of an AWS Lambda function



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Lifecycle of an AWS Lambda function



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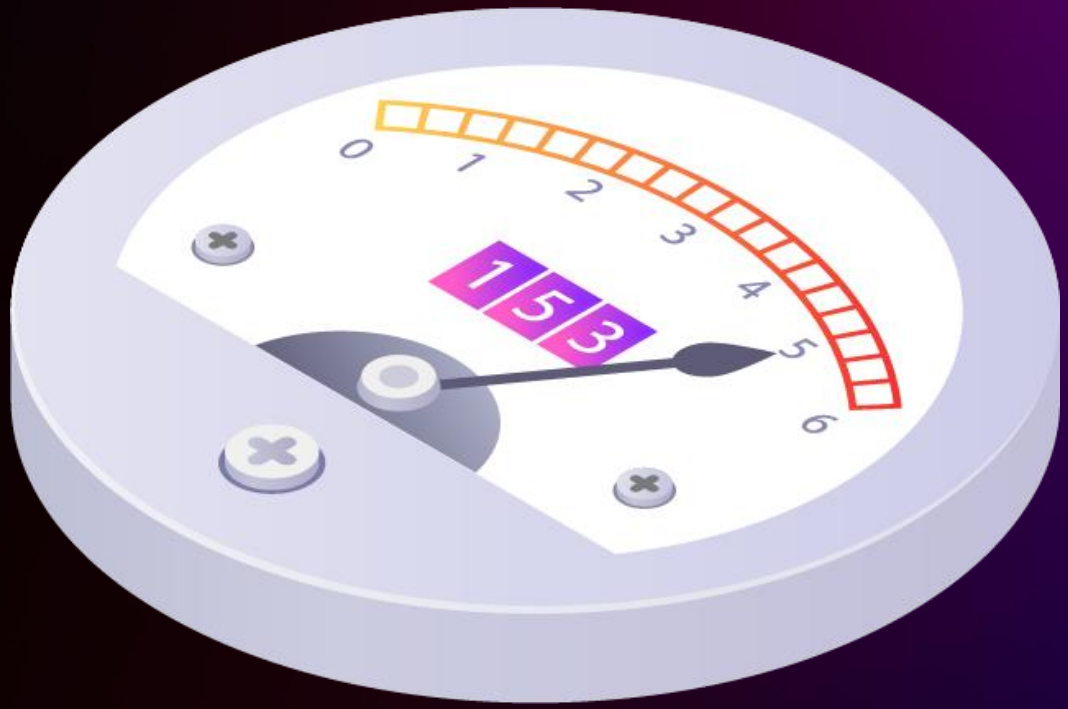
Measurement of an AWS Lambda function performance

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Measurement of an AWS Lambda function performance

To get the full story, you need data from

- Inside the function
- The invoke source
- Downstream performance

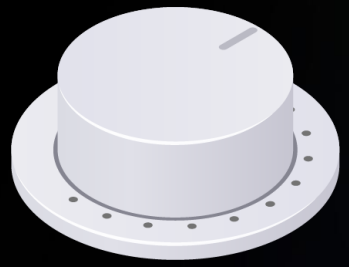


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Function configuration and tuning

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Function configuration



Memory and vCPU



X86 or ARM



AVX2



Provisioned concurrency



Reserved concurrency



Max concurrency

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“The most reliable code is the code that never was.”

Eric Johnson

Bald guy right in front of you

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More resources



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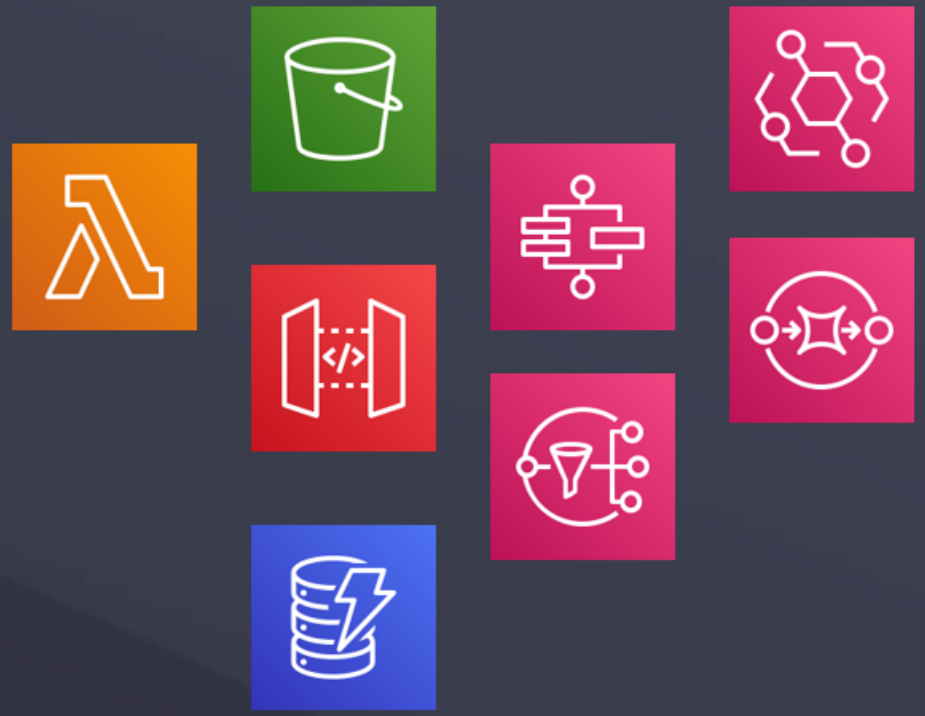
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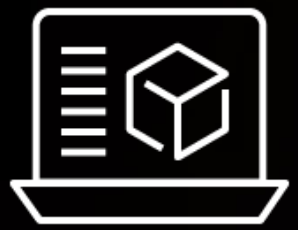
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Thank you!

Eric Johnson
@edjgeek



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